LEE COUNTY DEPARTMENT OF TRANSPORTATION

LIGHTING PLANS

INTERSECTION CONTROL (ROUNDABOUT)

INDEX OF LIGHTING PLANS

SHEET NO. SHEET DESCRIPTION

L-1 KEY SHEET

L-2 TABULATION OF QUANTITIES

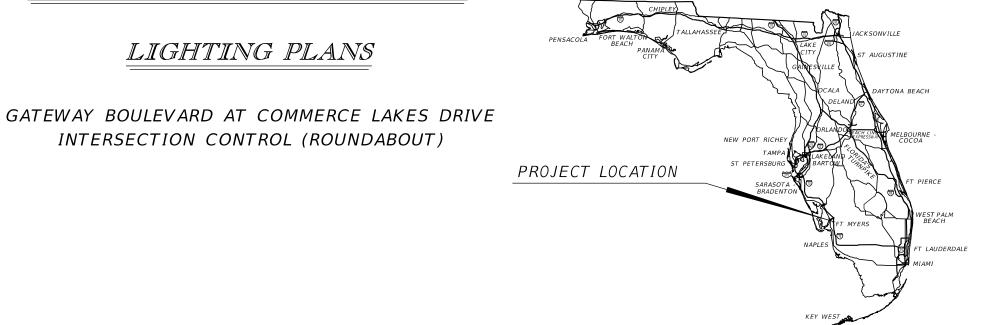
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SERVICE POINT DETAILS





THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

LIGHTING PLANS ENGINEER OF RECORD:

DAVID ALLEN, P.E. P.E. NO. 58540 CARDNO, INC. 3905 CRESCENT PARK DR. RIVERVIEW FL. 33578 (813) 257-0005 CERTIFICATE OF AUTHORIZATION NO.: 29915

COUNTY PROJECT MANAGER:

Alejandro J. Slaibe, P.E.

CIP NO.	FISCAL YEAR	SHEET NO.		
200671	20	L-1		

PAY	DECCRIPTION	UNIT	SHEET NUMBERS								TH	115 -	RAND OT AL
ITEM NO.	DESCRIPTION			- 5	L-6	L - 7	L - 8				SHL	EET '	JIAL
NO.			PLAN	FINAL	PLAN	FINAL PLAN	FINAL						
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	195			210					405	40	05
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	1365		290	390	435				2480	248	30
635-2-11	PULL & SPLICE BOX, F&I	EA											25
	LCDOT PULL BOX, 17" X 30" COVER SIZE GS PULL BOX, 13" X 24" COVER SIZE	EA EA	10 8		3	2	2				10 15		
639 - 1 - 122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	A5	1								1		1
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE (12')	EA	3								3		3
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO 8 TO NO 6	LF	8156		1410	1660	1449				12675	1267	75
715-1-60	LIGHTING CONDUCTORS, REMOVE & DISPOSE, CONTRACTOR OWNS	LF	500		543	1064					2107	210	27
715-4-12	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 35' MOUNTING HEIGHT	EA	9		2	2	3				16		16
715-4-70	LIGHT POLE COMPLETE, REMOVE POLE AND FOUNDATION	EA	4			1	2				7		7
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1								1		1

PAY ITEM FOOTNOTES

- 1. PAY ITEM 630-2-11: THE CONDUITS SHALL BE FITTED WITH BELL ENDS OR EQUIVALENT FITTINGS PRIOR TO THE PULLING OF ANY WIRE INTO THE CONDUITS.
- 2. PAY ITEM 630-2-12: THE CONDUITS SHALL BE FITTED WITH BELL ENDS OR EQUIVALENT FITTINGS PRIOR TO THE PULLING OF ANY WIRE INTO THE CONDUITS. ALL DIRECTIONAL BORES UNDER ROADWAY SHALL INCLUDE A SPARE CONDUIT CONTAINING A PULL WIRE AND SEALED WITH A WATER TIGHT CAP.
- 3. PAY ITEM 635-2-11: PULL BOXES DESIGNATED WITH (LCDOT) SHALL BE FOR THE PROPOSED LIGHTING SYSTEM MAINTAINED BY LEE COUNTY. THESE PULL BOXES SHALL HAVE "LCDOT STREET LIGHTING" STAMPED IN RAISED LETTERING ON THE PULL BOX COVERS AND INCLUDE A CONCRETE APRON. THE PULL BOX SHALL BE 17" X 30" AND 12" DEEP. THIS PULL BOX SHALL FOLLOW SECTION 635 IN FDOT SPECIFICATIONS.

PULL BOXES DESIGNATED WITH (GS) SHALL BE FOR THE ADJUSTED GATEWAY SERVICE COMMUNITY DEVELOPMENT DISTRICT EXISTING LIGHT SYSTEM. THESE PULL BOXES SHALL HAVE "GSCD STREET LIGHTING" STAMPED IN RAISED LETTERING ON THE PULL BOX COVERS. THE PULL BOX AND COVER SHALL BE CONCRETE WITH THE SIZE OF 12" X 24" AND 12" DEEP.

SEE POLE DATA AND LEGEND SHEET FOR DESIGNATED PULL BOX SYMBOLS.

- 4. PAY ITEM 639-1-122: THIS PAY ITEM IS FOR THE COST OF ALL THE POWER SERVICE ASSEMBLY COMPONENTS FOR EACH LOAD CENTER PAID UNDER A SEPARATE PAY ITEM NUMBER.
- CONCRETE SERVICE POLE FOR THE POWER SERVICE ASSEMBLIES SHALL BE 12 FEET.

6. PAY ITEM 715-1-60:

AT LOCATIONS WHERE EXISTING LIGHTING CONDUCTORS ARE TO BE REMOVED, THE CONDUIT SHALL REMAIN BELOW GRADE AND BE FILLED WITH GROUT. ALL CONDUIT REMAINING ABOVE FINAL GRADE SHALL BE CUT BELOW GRADE. THIS IS COVERED UNDER THIS PAY ITEM.

7. PAY ITEM 715-4-12:

THIS PAY ITEM INCLUDES THE LUMINAIRE OPTIONAL 7 PIN PHOTOCONTROL RECEPTACLE AND THE COST OF FURNISHING AND INSTALLING THE FIELD INSTALLED HOUSESIDE SHIELD (ATB2HS40) AND ROADSIDE SHIELD ACCESSORIES (ATB2SS40) PER EACH LUMINAIRE. THE HOUSE SIDE SHIELDS SHALL BE INSTALLED ON ALL LUMINAIRES. THE CONTRACTOR SHALL INSTALL THE ROADSIDE SHIELDS ONLY ON SPECIFIED LUMINAIRES AS DIRECTED BY THE ENGINEER TO HELP REDUCE GLARE TO LOCAL BUSINESSES AND RESIDENTS. HOWEVER, THE LIGHTING CRITERIA AND UNIFORMITY RATIO MUST STILL BE MET IF USING THE ROADSIDE SHIELDS. ALL SHIELDS NOT FIELD INSTALLED SHALL BE DELIVERED TO THE LOCATION DETERMINED BY LEE COUNTY DEPARTMENT OF TRANSPORTATION. SEE POLE DATA AND LEGEND FOR THE SPECIFICATIONS FOR THE TWO LUMINAIRES.

8. PAY ITEM 715-4-70:

INCLUDES THE REMOVAL OF POLE, BRACKET ARM, LUMINAIRE, TRANSFORMER BASE, FOUNDATION, ASSOCIATED WIRING AND ALL RESTORATION.

9. PAY ITEM 715-7-11:

THIS PAY ITEM FOR THE LOAD CENTER SHALL INCLUDE BUT NOT LIMITED TO NEMA 4X POLE MOUNT CABINET, ADDITIONAL ENCLOSURES, PANEL BOARDS, MAIN BREAKER, CIRCUIT BREAKERS, LIGHTNING PROTECTION, PHOTO-ELECTRIC ASSEMBLY, CONTACTOR, H.O.A SWITCH. CONDUIT AND FEEDER CONDUCTORS FROM THE POWER SERVICE ASSEMBLY TO THE LIGHTING CONTROL PANEL AND ALL MISCELLANEOUS HARDWARE FOR A COMPLETE INSTALLATION. TWO TYPE P-II CONCRETE SERVICE PEDESTALS FOR THE LOAD CENTER ASSEMBLY ARE PAID FOR SEPARATELY.

THE LOAD CENTER SHALL BE A THREE WIRE, SINGLE PHASE 120V/240V POWER SERVICE ASSEMBLY.

Γ		F	REVISIONS		DAVID J. ALLEN, PE		GATEWAY BOULEVARD AT COMMERCE LAKES DRIVE
F	DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. NO.: 58540	Too Course	INTERSECTION CONTROL (ROUNDABOUT)
					CARDNO 3905 CRESCENT PARK DRIVE RIVERVIEW, FL 33578 CERTIFICATE OF AUTHORIZATION: 29915	Southwest Florida DEPARTMENT OF TRANSPORTATION	TABULATION OF QUANTITIES

GATEWAY BOULEVARD AT COMMERCE LAKES DRIVE INTERSECTION CONTROL (ROUNDABOUT)	CIP NO.	SHT. NO.
TABULATION OF QUANTITIES	200671	L-2

- 2. SPARE CONDUIT AT PAVEMENT CROSSINGS SHALL BE CAPPED AT BOTH ENDS.
- 3. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT, FOR APPROVAL, EQUIPMENT SPECIFICATION OR DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT. THE SHOP DRAWINGS AND DESIGN DATA FOR ROADWAY LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD IN ACCORDANCE WITH THE SPECIFICATIONS.
- 4. PROVIDE SHOP DRAWINGS OF THE PHOTOMETRIC CALCULATIONS FOR LUMINAIRES OTHER THAN THE BASIS OF DESIGN. THE LUMINAIRE BASIS OF DESIGN IS THE FOLLOWING:
 - AMERICAN ELECTRIC LIGHTING AUTOBAHN ATB2 88 WATT LED LUMINAIRE 4000K COLOR TEMPERATURE WITH TYPE III DISTRIBUTION AND HOUSESIDE SHIELD. PHOTOMETRIC CURVE IS ATB2 40BLEDE70 XXXXX R3 HS.
 - AMERICAN ELECTRIC LIGHTING AUTOBAHN ATB2 133 WATT LED LUMINAIRE 4000K COLOR TEMPERATURE WITH TYPE III DISTRIBUTION AND HOUSESIDE SHIELD. PHOTOMETRIC CURVE IS ATB2 40BLEDE10 XXXXX R3 HS.

SEE POLE DATA AND LEGEND SHEET AND PAY ITEM FOOTNOTES FOR ADDITIONAL INFORMATION. MEET ALL PHOTOMETRIC REQUIREMENTS IN THE CONTRACT DOCUMENTS.

- 5. THE LOCATIONS OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE UTILITY OWNER(S) AND ARE SHOWN AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OWNER(S) FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES BEFORE EXCAVATING.
- 6. BEFORE EXCAVATING, IT IS REQUIRED THAT NOTICE BE GIVEN TO SUNSHINE STATE ONE CALL OF FLORIDA, INC. (SSOCOF) AT 1-800-432-4770 A MINIMUM OF TWO (2) FULL BUSINESS DAYS BEFORE WORK BEGINS. NOT ALL UTILITY COMPANIES ARE MEMBERS OF SSOCOE
- 7. THE LOCATION OF THE POLES, CONDUCTORS, CONDUITS AND JUNCTION BOXES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED WITHIN THE RIGHT-OF-WAY BY THE CONTRACTOR WITH APPROVAL FROM THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS. THE MAINTENANCE SLAB ORIENTATION SHALL BE DETERMINED BY THE CONTRACTOR PER INDIVIDUAL POLE LOCATION.
- 8. ALUMINUM POLES, LUMINAIRES AND BASES SHALL BE FABRICATED IN ACCORDANCE WITH AASHTO'S "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", AND SHALL HAVE BEEN TESTED BY FHWA APPROVED METHODS (LATEST EDITION). CERTIFICATION FOR TESTS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
- 9. ALL ELECTRICAL WORK SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC), THE NATIONAL ELECTRICAL SAFETY CODE (NESC) AND THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER NEC REQUIREMENTS.
- 10. IN ACCORDANCE WITH NEC, IDENTIFY ALL CIRCUITS AND EQUIPMENT WITH "LAMACOID TAGS". INSTALL SIMILAR TAGS OF STAINLESS STEEL IDENTIFYING THE CIRCUIT FOR EACH LUMINAIRE AT ACCESS HAND HOLE FOR EACH POLE.
- 11. NOTIFY FLORIDA POWER AND LIGHT (FP&L) AT LEAST THREE (3) FULL BUSINESS DAYS PRIOR TO ANY INSTALLATION THAT IS WITHIN THE DISTANCE PER CURRENT OSHA REQUIREMENTS OF ENERGIZED ELECTRICAL CONDUCTORS. FP&L, AT ITS OPTION, WILL ASSIST THE CONTRACTOR TO COVER UP ENERGIZED CONDUCTORS AT INSTALLATION SITES OR TAKE OTHER SAFETY PRECAUTIONS AS NECESSARY. EXTREME CAUTION SHALL BE EXERCISED AT ALL TIMES IN PERFORMANCE OF WORK AROUND THE PRIMARY HIGH VOLTAGE COMPONENTS.
- 12. OVERHEAD FACILITIES ARE TO REMAIN ENERGIZED AND IN PLACE. TABLE "A", MINIMUM CLEARANCE DISTANCES SPECIFIED IN SUBPART CC OF OSHA RULE 1926 (AS THEY PERTAIN TO CRANE/DERRICK OPERATIONS), AND/OR THOSE MINIMUM DISTANCES SPECIFIED IN 29 CFR 1910.333(c)(3)(i)(A) AND (iii)(A) FOR WORK IN PROXIMITY TO POWER LINES NOT COVERED BY THIS SUBPART CC, ARE TO BE MAINTAINED.
- 13. THE POWER SERVICE CONDUIT AND CABLE SHALL BE INSTALLED FROM THE PROPOSED LOAD CENTER TO THE LEFT-FRONT OF THE POWER SOURCE TRANSFORMER. THIS TRANSFORMER IS LABELED WITH THE NUMBER 8 ON THE UPPER-LEFT CORNER OF THE TRANSFORMER FRONT. AS AN OPTION, INSTALL EMPTY POWER SERVICE CONDUIT TO THE LEFT-FRONT OF THE SAID TRANSFORMER AND THEN PULL THE WIRES ON AN ADVANCED STAND-BY APPOINTMENT SET-UP WITH FP&L. THE CONTRACTOR SHALL CONTACT JUAN CRUZ (FP&L) AT PHONE: (941) 423-4842 AND/OR EMAIL: JUAN.CRUZ@FPL.COM OR THE LOCAL FP&L SERVICE PLANNER A MINIMUM OF FOUR (4) WEEKS PRIOR OF PULLING THE SERVICE CABLES INTO THE FP&L TRANSFORMER. THE CONTRACTOR SHALL NOT PUSH THE CABLES INTO THE TRANSFORMER WITHOUT A FP&L CREW PRESENT.
- 14. AT LOCATIONS WHERE THE PROXIMITY OF THE INSTALLATION IS CLOSE TO THE EXISTING OVERHEAD POWER, AS DETERMINED BY THE ENGINEER, A "LOW PROFILE" RIG SHALL BE REQUIRED TO DRILL THE FOUNDATION AND INSTALL THE LIGHT POLES.
- 15. WIRE PULLING INSTRUCTIONS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURER'S REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY THE NEC OR NESC FOR CABLE USED.

- 16. NO SCREW TYPE BASE FOUNDATIONS SHALL BE USED.
- 17. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE WITHIN TWO FEET OF THE LIGHT POLE FOOTER OR CONDUIT RUN, THE CONTRACTOR SHALL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.
- 18. THE NEW LIGHTING SYSTEM CONDUIT SHALL GO STRAIGHT TO THE PROPOSED LIGHT POLE FOUNDATION. ALL SPLICES SHALL BE DONE IN THE TRANSFORMER BASES
- ALL CONDUIT TRENCHES SHALL BE BACKFILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF EACH WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. THE CONTRACTOR SHALL NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME WORK PERIOD.
- 20. THE LIGHTING SYSTEM WILL BE MAINTAINED BY LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) UPON FINAL ACCEPTANCE.
- 21. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SIDE STREETS, PRIVATE AND COMMERCIAL DRIVEWAYS AT ALL TIMES DURING THE CONSTRUCTION OPERATION.
- 22. UPON PASSING THE FINAL INSPECTION, SEND A WRITTEN REQUEST TO THE FOLLOWING:

AND

LEE COUNTY DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING DEPARTMENT 1500 MONROF STREET FORT MYERS, FLORIDA 33901 PHONE: 239-533-8580

- 23. WHEN REQUESTING TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO LCDOT. LCDOT WILL RESPOND WITHIN FIVE (5) WORKING DAYS TO ESTABLISH TIME TABLE FOR THE TRANSFER OF MAINTENANCE RESPONSIBILITY.
- 24. WHEN CONSTRUCTION IS COMPLETE, A HARD COPY SET OF "AS-BUILT" PLANS IN ADDITION TO AN ELECTRONIC COPY (PDF) IS TO BE SUBMITTED TO BOTH:

BILL SHAW GATEWAY SERVICE COMMUNITY DEVELOPMENT DISTRICT 13240 GRIFFIN DRIVE FORT MYERS, FLORIDA 33913 PHONE: 239-561-1313

LEE COUNTY DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING DEPARTMENT 1500 MONROE STREET FORT MYERS, FLORIDA 33901 PHONE: 239-533-8580

- 25. LIGHT POLES AND PULL BOXES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DITCHES, WETLANDS, DRIVEWAYS, SURFACE WATER, PAVED SHOULDERS OR PEDESTRIAN RAMPS.
- 26. THE CONTRACTOR SHALL BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUIT OR PULL BOXES ARE TO BE INSTALLED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS
- 27. ALL EXCESS DIRT AND DEBRIS EXCAVATED FROM POLE FOOTER SHALL BE REMOVED DAILY TO AREAS APPROVED BY THE ENGINEER AND PAID FOR UNDER PAY ITEMS 715-4-12.
- 28. CONTACT GATEWAY SERVICE COMMUNITY DEVELOPMENT DISTRICT A MINIMUM OF TWO (2) WEEKS PRIOR TO ANY WORK ON THE EXISTING LIGHTING SYSTEM. CONTACT INFORMATION IS AS FOLLOWS:

BILL SHAW GATEWAY SERVICE COMMUNITY DEVELOPMENT DISTRICT 13240 GRIFFIN DRIVE FORT MYERS, FLORIDA 33913 PHONE: 239-561-1313

- 29. COORDINATE WITH GATEWAY SERVICE COMMUNITY DEVELOPMENT DISTRICT FOR ACCESS TO THE EXISTING LIGHTING LOAD CENTER WHEN WORKING ON THE EXISTING LIGHTING SYSTEM.
- 30. THE EXISTING LIGHTING SYSTEM WITHIN PROJECT LIMITS SHALL BE IN COMPLETE WORKING ORDER PRIOR TO FINAL ACCEPTANCE.
- ALL REMOVED ITEMS INCLUDING BUT NOT LIMITED TO THE LIGHT POLES, LUMINAIRES, PULL BOXES, WIRING AND CONDUCTORS ARE TO BE DISPOSED OF BY THE CONTRACTOR AT A PLACE DETERMINED BY HIM.
- 32. ALL CONDUIT INSTALLATION NEAR TREES SHALL MEET ANSI 300 STANDARDS.

PULL BOX LEGEND

LCDOT = LEE COUNTY LIGHTING PULL BOX

= GATEWAY SERVICE COMMUNITY DEVELOPMENT DISTRICT PULL BOX

CONDUIT LEGEND

LC = PROPOSED LIGHTING CONDUIT FOR THE NEW LIGHTING SYSTEM

ELC = PROPOSED LIGHTING CONDUIT FOR ADJUSTMENT TO THE EXISTING LIGHTING SYSTEM

FU = FUTURE USE LIGHTING CONDUIT

SP = EMPTY SPARE LIGHTING CONDUIT

	REV	'ISIONS		DAVID J. ALLEN, PE		GATEWAY BOULEVARD AT COMMERCE LAKES DRIVE
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. NO.: 58540	Course los	INTERSECTION CONTROL (ROUNDABOUT)
				CARDNO 3905 CRESCENT PARK DRIVE RIVERVIEW, FL 33578 CERTIFICATE OF AUTHORIZATION: 29915	Southwest Florida DEPARTMENT OF TRANSPORTATION	GENERAL NOTES

POLE DATA

POLE NO.	CIRCUIT	STATION	DIST. OR ARM	LUMINAIRE WATTAGE	MOUNT I NG HE I GHT	POLE SETBACK TO CENTER OF POLE	PAY ITEM
1	A-3	105+60, BL GATEWAY LT	15'	88	35'	7' FROM FOC	715-4-12
2	A-3	106+93, BL GATEWAY RT	15'	133	35 '	3' FROM BOS	715-4-12
3	A-3	107+40, BL GATEWAY LT	15'	88	35 '	3' FROM BOS	715-4-12
4	A - 1	211+87, BL COMMERCE RT	15'	88	35'	3' FROM BOS	715-4-12
5	A-3	209+56, BL COMMERCE RT	15'	133	35 '	2' FROM BOS	715-4-12
6	A - 1	213+62, BL COMMERCE RT	15'	88	35'	5' FROM FOC	715-4-12
7	A-3	207+02, BL COMMERCE RT	15'	88	35'	7' FROM FOC	715-4-12
8	A-2	215+06, BL COMMERCE LT	15'	88	35'	10' FROM FOC	715-4-12
9	A-4	208+28, BL COMMERCE LT	15'	88	35 '	10' FROM FOC	715-4-12
10	A-2	212+27, BL COMMERCE LT	15'	133	35 '	7' FROM BOS	715-4-12
11	A-4	209+76, BL COMMERCE LT	15'	133	35 '	2' FROM BOS	715-4-12
12	A-2	108+97, BL GATEWAY RT	15'	88	35 '	2' FROM BOS	715-4-12
13	A - 4	109+50, BL GATEWAY LT	15'	133	35'	2' FROM FOS	715-4-12
14	A-2	110+29, BL GATEWAY RT	15'	88	35 '	12' FROM FOC	715-4-12
15	A - 4	111+59, BL GATEWAY LT	15'	88	35'	12' FROM FOC	715-4-12
16	A-2	111+09, BL GATEWAY RT	15'	88	35'	18' FROM EOP	715-4-12
			1				

FOC = FACE OF CURB, FOS = FRONT OF SIDEWALK, BOS = BACK OF SIDEWALK, EOP = EDGE OF PAVEMENT, GW = GRAVITY WALL

	REVIS	DAVID J. ALLEN, PE		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. NO.: 58540
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ROUNDABOUT

LIGHTING DESIGN CRITERIA

Average Horizontal Initial Intensity 3.0 Foot Candles Average Vertical Initial Intensity 2.3 Foot Candles Uniformity Ratio Avg./Min. 4:1 Or Less Max./Min. 10:1 Or Less 0.3:1 Or Less Veiling Luminance Ratio Wind Speed 170 MPH

LEGEND

DESCRIPTION **SYMBOLS**

> Designed for a American Electric Lighting Autobahn ATB2 88 watt LED luminaire with 3000k color temperature, Roadway Type III distribution and houseside shields. See pay item footnotes for additional luminaire information. Luminaire shall be wired for 480 volt operation. Pole mounting height is 35 feet with a 15-foot arm length mounted on a standard light pole. No tilt. Lighting basis of design used AEL Autobahn ATB2 photometric curve number ATB2_40BLEDE70_XXXXX_R3_3k_HSS with output lumens of 11,000.

Designed for a American Electric Lighting Autobahn ATB2 133 watt LED luminaire with 3000k color temperature, Roadway Type III distribution and houseside shields. See pay item footnotes for additional luminaire information. Luminaire shall be wired for 480 volt operation. Pole mounting height is 35 feet with a 15-foot arm length mounted on a standard light pole. No tilt. Lighting basis of design used AEL Autobahn ATB2 photometric curve number ATB2_40BLEDE10_XXXXX_R3_3k_HSS with output lumens of 16,000.

 $() \rightarrow ()$ Existing pole and luminaire to remain.

 $() \times ($ Existing pole and luminaire to be removed.

Existing conduit and conductors to remain unless noted otherwise.

Proposed open trench conduit with THWN-2 conductors inside (conduit and conductor size as shown on plan sheets). Run one (1) No. 6 AWG (minimum) copper bond conductor (THWN green insulation) inside conduit with other conductors.

Proposed conduit directional bored with THWN-2 conductors inside (conduit and conductor size as shown on plan sheets). Extend conduit beyond edge of pavement to pull boxes. Run one (1) No. 6 AWG (minimum) copper bond conductor (THWN green insulation) inside conduit with other conductors.

Pull box with concrete apron for the LCDOT maintained proposed lighting system. For specifications see Section 635 of Standard Specifications For Road And Bridge Construction.

Pull box for the adjusted Gateway Service Community Development District maintained lighting system. For specifications contact Bill Shaw with Gateway Service Community Development District.

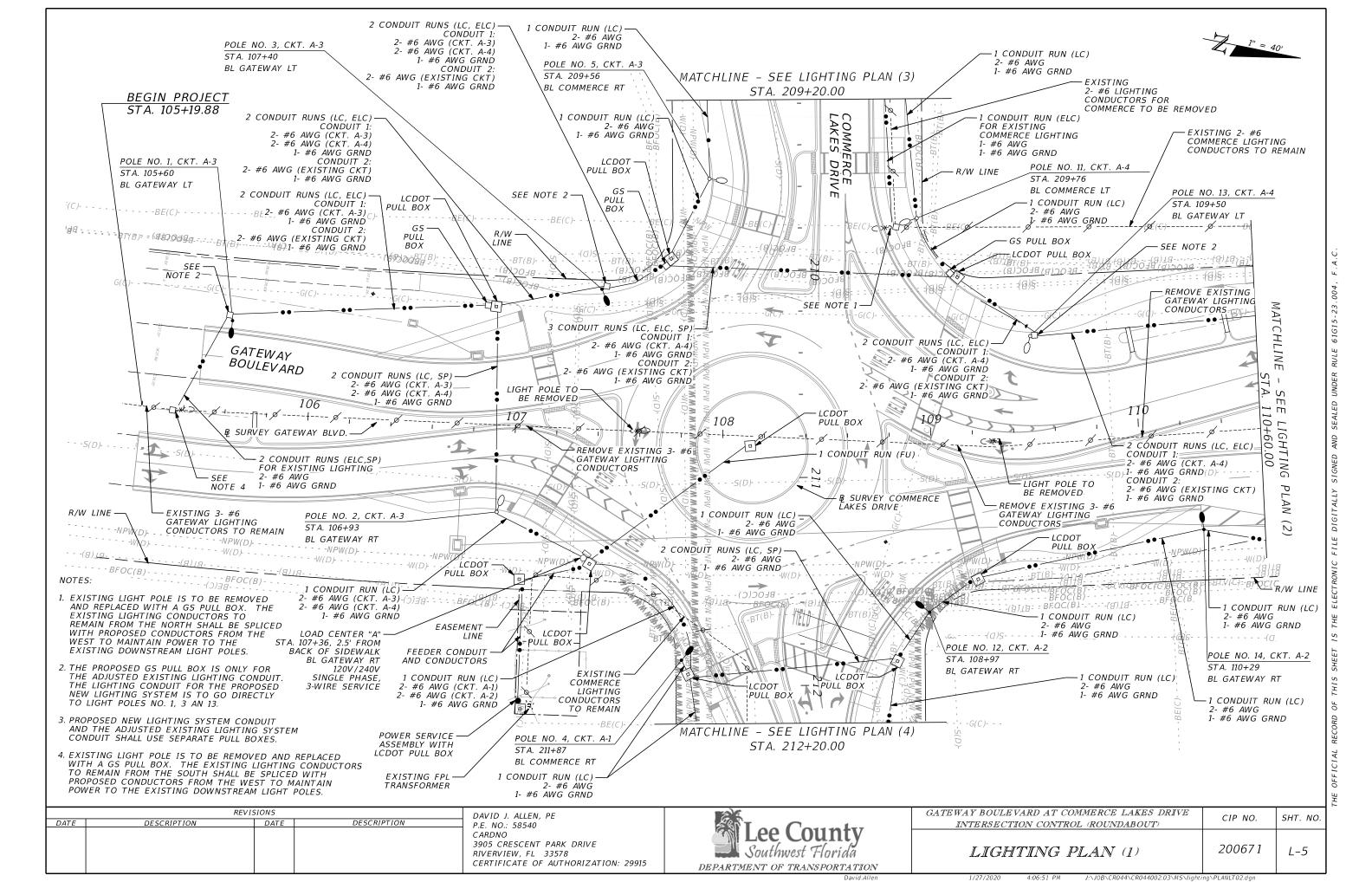
Proposed 120V/240V Load Center. For requirements see Index No. 639-001 of the FDOT Standard Plans.

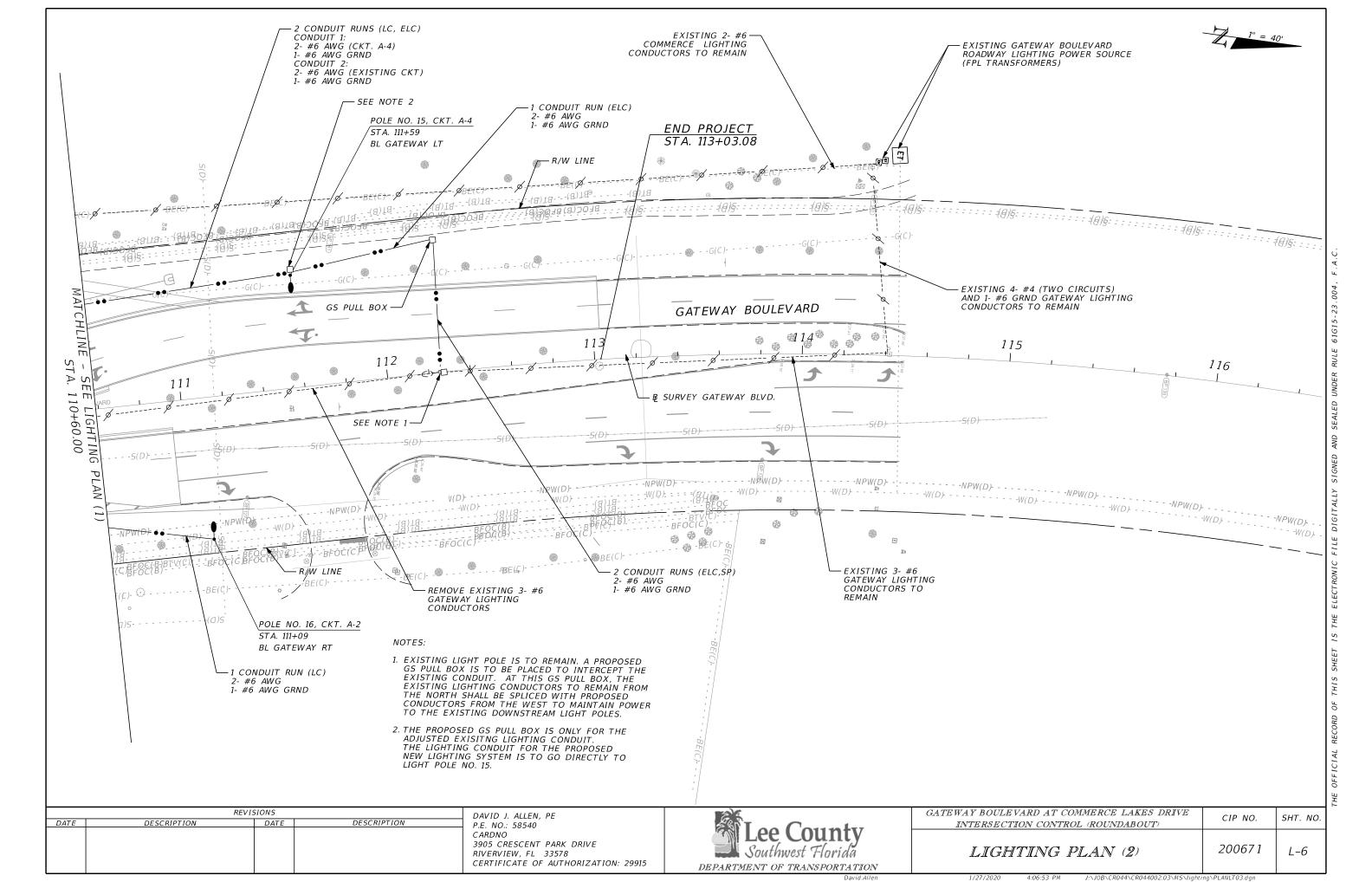
Existing FPL Transformer to be used for power source.

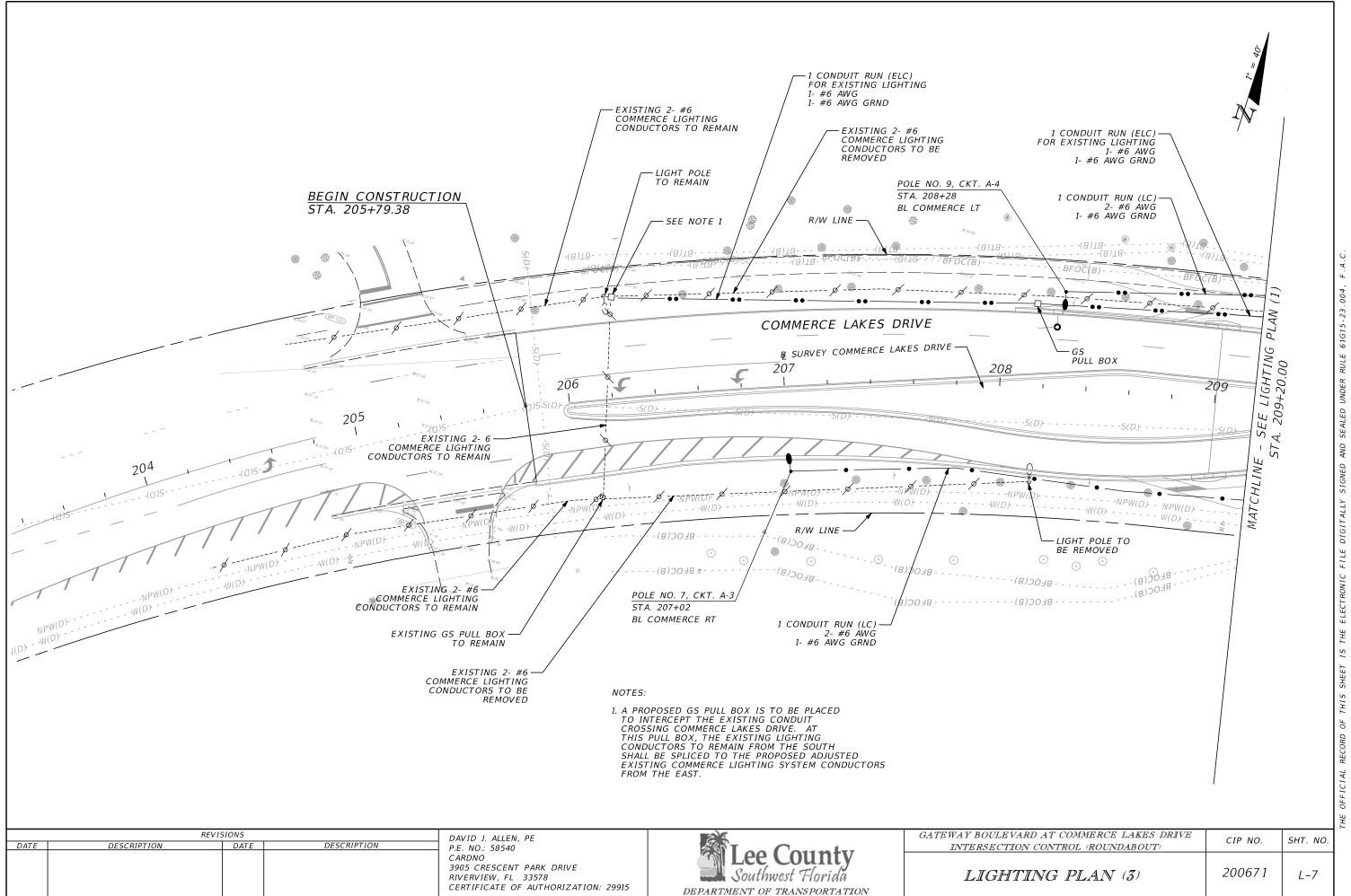
Power service assembly. For specifications see Section 639 of FDOT Standard Specifications for Road and Bridge Construction.



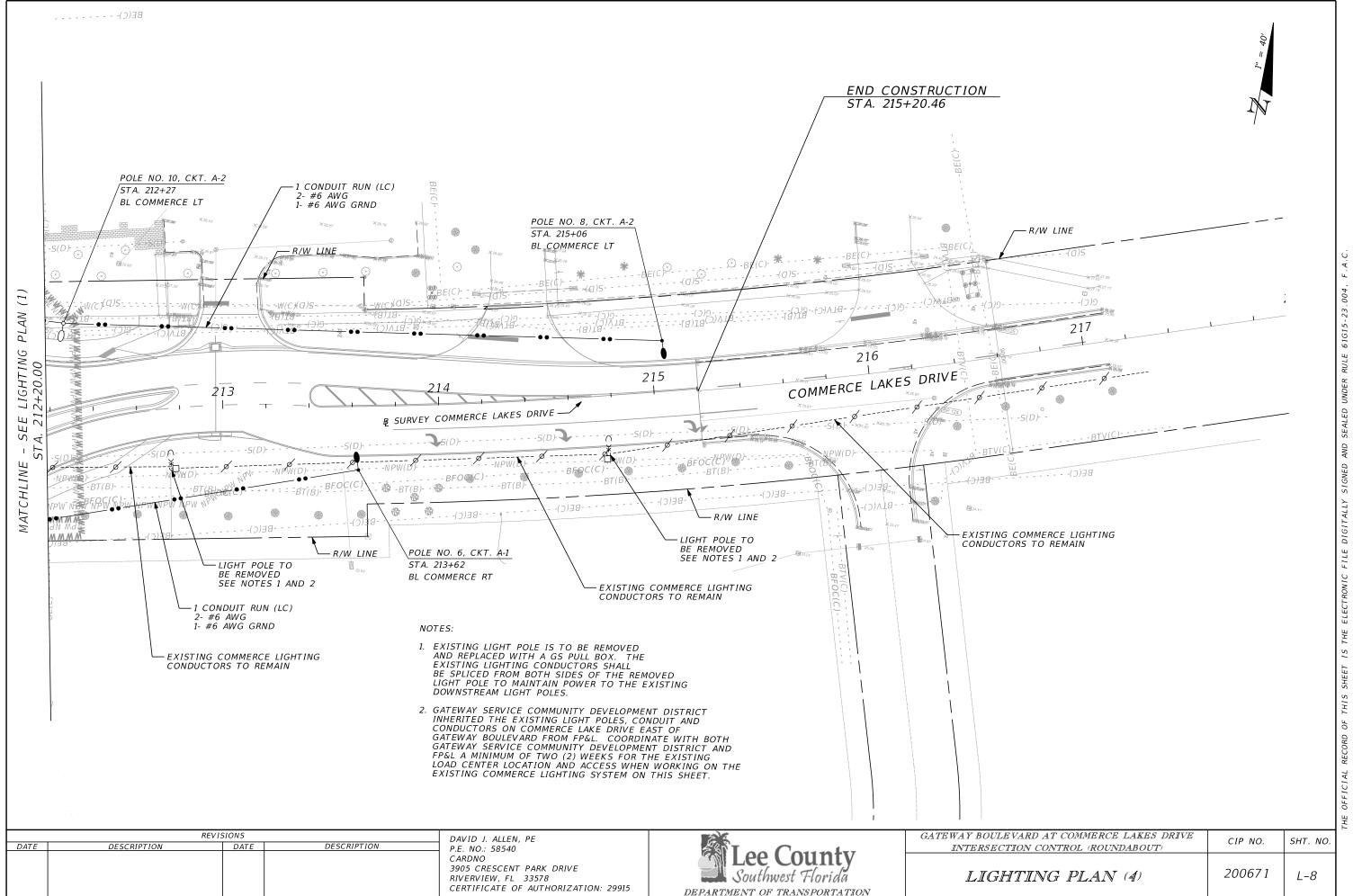
ATEWAY BOULEVARD AT COMMERCE LAKES DRIVE INTERSECTION CONTROL (ROUNDABOUT)	CIP NO.	SHT. NO
POLE DATA AND LEGEND	200671	L-4





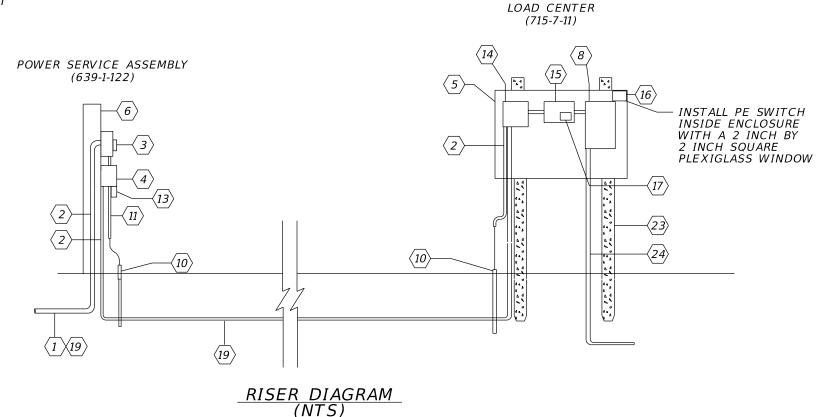


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KEYED NOTES

- 120/240V SINGLE PHASE 3-WIRE FPL ELECTRIC DISTRIBUTION UNDERGROUND SERVICE FROM FPL TRANSFORMER.
- (2) INSULATED #2 COPPER FEEDER CONDUCTORS IN RIGID GALVANIZED STEEL CONDUIT
- (3) METER SOCKET BY CONTRACTOR. METER BY FPL.
- SERVICE MAIN DISCONNECT: 600V, 2-POLE HEAVY DUTY NEMA 3R WITH ENCLOSED BREAKER.
- 5 POST-MOUNTED 4X CABINET WITH LOCKABLE HINGED DOOR. SIZE PER EQUIPMENT REQUIREMENT.
- $\langle 6 \rangle$ 12' PEDESTAL CONCRETE POLE
- 8 ELECTRICAL PANEL, 120/240V, SINGLE PHASE. 3-WIRE WITH GROUND BAR AND CIRCUIT BREAKERS. SEE PANEL SCHEDULE FOR MORE INFORMATION.
- $\langle 10 \rangle$ COPPER CLAD GROUND ROD %-INCH DIA. 40 FEET LONG.
- FPL REQUIRED SIZED INSULATED COPPER GROUND WIRE IN 1-INCH RIGID GALVANIZED STEEL. BOND THE SERVICE NEUTRAL TO GROUND AT SERVICE MAIN DISCONNECT.
- (13) LIGHTNING ARRESTOR MOUNTED ON OUTSIDE OF ENCLOSURE.
- MAIN CIRCUIT BREAKER 2-POLE, 120/240V. SEE DISTRIBUTION POINT DESCRIPTION ON LIGHTING PLAN SHEETS FOR SIZE.
- (15) 2-POLE, ELECTRICALLY HELD CONTACTOR WITH SAME AMPACITY RATING AS MAIN CIRCUIT BREAKER.
- (16) PHOTO ELECTRIC CELL SWITCH 120V RATED, INSIDE ENCLOSURE.
- (17) 'HAND-OFF-AUTOMATIC' SELECTOR SWITCH (PART OF LIGHTING CONTACTOR).
- (19) UNDERGROUND FEEDER CONDUIT INSULATED #2 COPPER FEEDER CONDUCTORS
- 23 12' CONCRETE PEDESTAL POLES WITH GALVANIZED UNISTRUT TO SUPPORT ELECTRICAL EQUIPMENT.
- CONDUIT(S) WITH CONDUCTORS FOR THE LIGHTING CIRCUITS.
 THE CONTRACTOR SHALL DETERMINE THE NUMBER OF NECESSARY
 CONDUIT DROPS.



REVISIONS

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3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578
CERTIFICATE OF AUTHORIZATION: 29915



GATEWAY BOULEVARD AT COMMERCE LAKES DRIVE INTERSECTION CONTROL (ROUNDABOUT)	CIP NO.	SHT. NO.
SERVICE POINT DETAILS (1)	200671	L-9

Panel ID: Proposed Load Center "A" Main Breaker: <u>100 A</u> Location: Sta. 107+36 BL GATEWAY RT, 2.5' FROM BOS Voltage: 120/240 V Mounting: Surface Single Phase, 3-wire

	Circuit Description	Load (KVA)	Breaker	Pole	Bus	Pole	Breaker	Load (KVA)	Circuit Description	
1	A-1	0.32	20	2	Α	2	20	0.79	A-2	2
3	↓	0.32			В			0.79	↓	4
5	A-3	0.79	20	2	Α	2	20	0.63	A-4	6
7	+	0.79			В			0.63	\	8
9					Α					10
11					В					12
13					Α					14
15					В					16
17					Α					18
19					В					20
21					Α					22
23					В					24

NOTES

1. SAFETY SWITCH - 100 AMP F/A 100 AMP

2. BOS = BACK OF SIDEWALK

TOTAL DEMAND 5.06 KVA TOTAL DEMAND AMPS 21.08 AMPS NO. OF POLES 16

	REV I	DAVID J. ALLEN, PE	
DATE	DESCRIPTION	P.E. NO.: 58540	
			CARDNO
			3905 CRESCENT PARK DRIVE
			RIVERVIEW, FL 33578
1			CERTIFICATE OF AUTHORIZATION: 29915

